

(This page intentionally blank.)

TELECOMMUNICATIONS INDUSTRIES ASSOCIATION  
Standards and Technology Department  
Meeting Report, Meeting Number 54  
Committee TR-15 Ephemeral Communications Systems and Equipment  
14 June 1991 Tawdry Towers Hotel Biminji, ND

MEMBERS PRESENT

NAME	ORGANIZATION REPRESENTED
Richard P. Branch (Chairman)	dBm Consulting (for AT&P)
Mike Diehl	GCD
Jack Morgan	Engineola
Douglass Jack	Ephemerex
Toby Nissan	Haynes
Frank Once	Pencil Data Systems

MEMBERS ABSENT

Donald LeConnor	Radical-Milgo
Eric Hansen	Southern Telecom
George Laurence	DAMP Inc

OTHERS

(None)

**1 Call to Order**

The meeting was called to order at 4:45 pm, on Friday, June 14, 1991, by chairman Richard P. Branch. The meeting was held at the Tawdry Towers Hotel, Biminji, ND. The chairman announced that a quorum was present.

**2. Meeting Report**

The Meeting Report of Meeting Number 53 was accepted with editorial corrections.

**3. Subcommittee Reports**

The chairman of subcommittee TR-15.1, Ephemeral Interfaces, reported that the subcommittee had completed work on project PN-4035, Ephemeral Communications, High-speed Interface, and had voted unanimously to request that it be issued for public comment as a Standards Proposal. Since the final draft of PN-4035 had been mailed to all TR-15 members in advance of the meeting, and the

proposal had been included in the published agenda, the chairman called for discussion prior to a vote to approve issuance of the document as an SP. Mr. Once asked the subcommittee chairman to explain the need for dual backsignals on the F3 and Q5 leads, when it seemed that either one would do. The chairman explained the subcommittee's rationale, which concerned time delays on satellite circuits. Mr. Once withdrew his objection. The committee then voted 6-0 for release of the SP.

There were no action items from the other sub-committees. Two draft documents from TR-15.2 were distributed for information.

#### **4. Future Meetings**

The next meeting will take place September 4-7 at the Sunnyside Hilton, Sunnyside, GA and will be hosted by Telerex and Everbit.

The schedule for the next meeting is as follows:

9/04	9/05	9/06	9/07
Tues	Weds	Thurs	Friday
TR-15.4	TR-15.3	TR-15.1	TR-15.2
TR-15.2.1	TR-15.2.1	TR-15	

#### **5. Other Business**

There was no other business.

#### **6. Adjournment**

The meeting was adjourned at 5:00 pm. This meeting was conducted in accordance with the TIA Legal Guide and TIA Engineering Manual.

/Signature/

Richard P. Branch, Chairman TR-15 Ephemeral Transmission Systems and Equipment

/Signature/

Toby Nissan, Secretary

Document Register

Committee: TR-15 Year: 1991

Doc No.	Title	Source
TR-15/91/06/001	PN-4035 High-Speed Interface	TR-15.1
TR-15/91/06/002	IS for Automode Procedures	TR-15.2
TR-15/91/06/003	Modem (GSTN) Beyond 14400 bit/s	TR-15.2

Note: This is a minimum set of information for the document register. Other information, such as meeting report references may be added.

(This page intentionally blank.)

**Annex E - TIA Legal Guides**

(This page intentionally blank.)

## **TIA LEGAL GUIDE**

### **PART I GENERAL GUIDES APPLICABLE TO ALL TIA ACTIVITIES**

This PART I includes general guides applicable to all Telecommunications Industry Association activities. They are required to be read and followed by all members of the Association and staff, chairmen and members of all committees, sections, divisions, and other TIA sponsored groups.

It is the policy of TIA strictly to comply with the antitrust laws and regulations of the United States and any other jurisdiction applicable to TIA meetings, programs, or activities. Any discussion or conduct in violation of such laws or regulations is contrary to TIA policy and must be avoided.

#### **Section A. IMPROPER ACTIVITIES AND PROGRAMS**

TIA activities or programs relating to any of the following subjects are improper and are not permitted:

(1) **Restraint of Trade Agreements.** The establishment of prices, production quotas, or uniformity of conduct, the allocation of customers or markets, standard terms or conditions of sale, boycotts, or other competitive restraints are improper activities. Therefore, any activities within, or in conjunction with, Association meetings relating to any of these matters are improper and committee chairmen, staff, and participants should take affirmative action to assure that no such discussions are initiated or pursued.

(2) **Prices and Pricing Policies.** Any consideration or discussion of product prices or industry pricing policies is improper and therefore not permitted. This applies to all discussions and casual remarks relating to individual company prices, changes in prices, or general price levels whether involving formal or informal exchanges between participating representatives. Such discussions are improper and must be avoided.

(3) **Terms and Conditions of Purchase and Sale.** Any discussion at, or in conjunction with, TIA meetings of terms and conditions of purchase and sale, including but not limited to warranty and warranty periods, discounts, allowances, or terms of credit, or the formulation of uniform or standard terms and conditions of purchase or sale, uniform basing points or zoning prices, or the recommendation thereof for voluntary use by the membership also is improper and is prohibited. It is usually proper, however, to discuss and propose comments and recommendations to Government agencies relating to general contract provisions, or modifications thereof,



or other procurement practices or policies proposed or adopted by such agencies.

(4) **Costs.** Programs or activities involving the exchange of information relating to individual company costs of production or distribution and any formulas for computing such costs are improper. Discussions at TIA meetings of industry costs are normally not permitted.

(5) **Future Plans.** Programs involving the exchange of company information relating to future plans affecting the design, research and development, production, and distribution or marketing of products are also improper. Any discussions at TIA meetings relating to such programs are not permitted. This does not preclude normal new product introductions or announcements at TIA sponsored trade shows.

(6) **Boycotting Customers or Products.** Any activity involving the black-listing or boycotting of customers, competitors, suppliers, or others or establishment of patterns of uniform dealing is improper. Therefore, there shall be no activities relating to any form of boycotting or any activity which may be interpreted as such.

## **Section B. PROCEDURES FOR CONDUCTING ACTIVITIES**

(1) **Notices and Agendas.** Notices and agendas for TIA meetings shall be prepared in advance and distributed prior to the date of the meeting. Agendas shall not include any subjects which are stated as improper for consideration or discussion under the rules established in these Legal Guides. All agendas otherwise shall be in conformity with rules established by the General Counsel or shall be specifically approved by him. Whenever feasible, background information which would be helpful in the consideration of items on the agenda should be distributed in advance of meetings.

(2) **Conduct of Meetings.** All meetings shall be conducted in such a way as to assure ample opportunity and freedom in the exchange of ideas and an equal voice in all decisions by parties entitled to vote thereon. Committee chairmen and TIA staff personnel shall make sure that all actions and discussions at meetings are kept within the bounds of proper association activity. Committee chairmen should immediately rule out of order discussion deemed improper or questionable under the policies set forth herein until the propriety of such discussion has been determined by general counsel. If any doubt exists concerning the propriety of a program, either from a legal or policy point of view, it shall not become final or effective until after review by general counsel. Committee chairmen should follow the published agenda and not

depart therefrom except for a good and legitimate reason, in which event the minutes should record the reasons for such departure.

(3) **Voting in Committees.** All Committees other than Engineering Committees shall adopt rules consistent with these Guides and other rules, policies and by-laws adopted by TIA to ensure that each company represented shall be entitled to vote in a manner which will give equal weight to the vote of each company represented on the Committee, regardless of the number of representatives from any one company, if there should be more than one. Engineering committees shall follow the rules set forth in the TIA Engineering Manual.

(4) **Preparation and Review of Minutes.** Minutes or reports of all meetings shall be taken and recorded. Minutes shall include the time and place of the meeting, a list of all committee members and non-members attending, a statement of all matters discussed and actions taken with appropriate reasons therefore, and a record of all voting. The votes of participants need not be identified by company or individual.

All minutes or reports of meetings shall be approved by general counsel before distribution. Upon approval, they should be distributed to all members of the committee and any other TIA members desiring or requesting copies.

**PART II**  
**SPECIAL GUIDES APPLICABLE TO ENGINEERING**  
**STANDARDIZATION PROGRAMS**

This PART II contains legal policies applying specifically to the operations and conduct of all TIA engineering standardization and related programs. It details the general policies of TIA and supplements the procedures contained in Standards and Technology Department "Manual of Organization and Procedure" ("Manual"). In addition to the rules established in this PART II, all engineering standardization programs are required to be conducted in accordance with the rules set forth in PART I of these Legal Guides.

**Section A. LIMITATIONS ON STANDARDIZATION PROGRAMS**

TIA standardization programs shall be confined to the formulation of standards within the rules set forth in this PART II defining or describing the dimension, quality, reliability, operating characteristics, performance, compatibility, interoperability, nomenclature, or any combination of these, and similar factors relating to telecommunications products, processes, systems, and procedures or those useful in the provision of communications services. These programs include not only those sponsored or initiated by TIA and its members but also those recommended by Government agencies.

**Section B. STATEMENT OF POLICY**

The following statement of policy, reflecting the basic objectives of all standardization programs, shall be included in all TIA standards:

"TIA standards are designed to serve the public interest by eliminating misunderstandings between manufacturers and purchasers, facilitating interoperability, interchangeability and improvement of products, and assisting the purchaser in selecting and obtaining the proper telecommunications product for his particular need. Existence of such standards shall not in any respect preclude any member or non-member of TIA from manufacturing or selling products not conforming to such standards."

"Except as provided in the Engineering Manual, Standards are proposed or adopted by TIA without regard to whether their proposal or adoption may in any way involve patents on articles, materials, or processes. By such action, TIA does not assume any liability to any patent owner, nor does it assume any obligation whatever to parties adopting TIA standards, to parties manufacturing or

selling products or services conforming to such standards or to users of such products or services. Other TIA rules respecting standards where patents are involved are contained in the Manual and should be read in conjunction with these Guides. Furthermore, in all cases specific requirements and restraints expressed elsewhere in these Guides must govern."

### **Section C. BASIC RULES FOR CONDUCTING PROGRAMS**

All TIA standardization programs shall be conducted in accordance with the following basic rules:

- (1) They shall be carried on in good faith under policies and procedures which will assure fairness and unrestricted participation;
- (2) Participation shall be extended to all technically qualified members of the industry, including representatives of user groups where appropriate, irrespective of membership in TIA;
- (3) Each program shall be shown to serve one or more of the public interest objectives as provided in Section D of this PART II;
- (4) They shall not involve any agreement, expressed or implied, to adhere, or require adherence to a standard or the use of any coercion, directly or indirectly, with respect thereto;
- (5) They shall not be proposed for or indirectly result in effectuation of a price fixing arrangement, facilitating price uniformity or stabilization, restricting competition, giving a competitive advantage to any manufacturer, excluding competitors from the market, limiting or otherwise curtailing production, or reducing product variations except where required to meet one or more of the objectives set forth in Section D of this PART II; and
- (6) Personnel participating in such programs as the representatives of members of the industry should be technical personnel.

### **Section D. SELECTING A PROGRAM**

All standardization programs must be shown to serve a legitimate public interest objective and that objective should be specifically stated in the context of the standard. To assure this, the program should relate to the achievement of one or more of the following objectives:

- (1) promoting interchangeability and interoperability of products falling within the scope of TIA Engineering Committees;

- (2) eliminating misunderstandings or confusion between manufacturers and buyers with respect to products on which TIA standards or specifications are adopted;
- (3) providing assistance to the purchaser in selecting and obtaining the proper product for a particular need;
- (4) improving the quality of products covered by TIA Standards or Specifications.

#### **Section E. NOTICE OF MEETINGS**

Advance notice shall be given to all participating representatives as to the matter to be considered for standardization and the nature of the action being contemplated. Procedures should provide reasonable means for making available all data, specifications, and other technical information relating to a product, process or technology proposed for standardization to all persons participating in or contributing to the program involved irrespective of their membership in TIA. Committee activities should be limited to discussions of the engineering and technical aspects of standardization or the procedures relating thereto.

#### **Section F. SPECIAL RULES FOR CONDUCTING STANDARDIZATION PROGRAMS**

(1) **Voluntary Adherence to Standards.** Adherence to standards shall be entirely voluntary and within the discretion of individual manufacturers. Any agreement, expressed or implied, or any coercion, direct or indirect, to adhere or to require or compel adherence to a standard is **not permitted**.

(2) **Engineering and Technical Considerations.** All standardization activity shall be confined to the technical and engineering considerations in the establishment of a standard and these considerations shall relate to one of the legitimate objectives as provided in Section D of this PART II.

(3) **Commercial Standards.** Standardization relating to the commercial aspects of products, such as conditions or terms defining commercial relationships between manufacturer and buyer with respect to engineering standards is **not permitted**. This type of activity is the proper concern of each interested company acting individually and is not a proper association activity. (See Section A(3), PART I of these Guides.)

(4) **Standards Involving Quality or Performance.** Generally, standards relating to quality or performance of products should not specify or describe the characteristics of such products in terms of maximum quality or maximum performance. This does not preclude standards stated in terms of maximum or minimum - maximum charac-

teristics which are prescribed for the sole purpose of indicating that the product meets certain limited requirements and is designed to serve limited technical functions and purposes. Such standards generally involve product differentiation as distinguished from product quality. Standards may include suggested specific AQL's (Acceptable Quality Level) for guidance purposes with the actual AQL to be agreed upon between the manufacturer and the user, or include ranges of AQL's for the same purpose.

(5) **Revision of Standards.** Any revision of an existing standard shall conform to the same procedures and policies applicable to the initiation of the original standard. Such revision should be clearly justified as to legitimacy of objective and that objective should be stated in the revision.

(6) **Interpretation of Standards.** The interpretation of standards, insofar as it may relate to a specific product or manufacturer, is a proper matter for individual company concern and should not be undertaken by TIA staff members or any person acting in the capacity of a TIA committee member. TIA staff comments, if any, shall be limited to an explanation or clarification of technical language or provisions in a standard but not related to its application to specific products or manufacturers. Means are provided in the Engineering Manual for the rendering of formal interpretations of TIA standards, which interpretations will be available to all interested parties.

(7) **Acceptability of Standards.** All proposed standards recommended by TIA engineering committees or task groups shall be submitted for final review and approval in accordance with the TIA Standards and Technology Department's Manual of Organization and Procedure.

(8) **Final Adoption.** Final adoption of proposed standards shall be in accordance with the Standards and Technology Department's "Manual of Organization and Procedure." In the process of adopting a standard, consideration shall be given to all comments of industry and user interests where applicable irrespective of TIA membership, and if there is substantial opposition to the adoption of a proposed standard, the program involving such standard should be abandoned or referred to an appropriate committee or task group for further consideration.

#### **Section G. PROCEDURES FOR COMMENTING ON MILITARY SPECIFICATIONS AND PRODUCTS**

In offering comments or recommendations to elements of the DOD on Military standardization documents, the following procedures shall be followed:

(1) Participation shall be unrestricted and extended to all companies which have made known their interest regardless of membership in TIA or on the cognizant committee or committees;

(2) Adequate notice of meetings shall be given all committee members and all other companies or representatives known to have an interest and shall include all issues to be discussed;

(3) Comments and recommendations shall be offered merely as such, limited to the technical aspects of the specifications, and shall reflect any divergence of views among those participating;

(4) Copies of comments and recommendations shall be sent to all company representatives known to have an interest;

(5) All submissions to the military departments shall contain a statement that the comments and recommendations reflect only the views of the group participating; and

(6) They shall be reviewed and submitted by TIA staff in accordance with established procedures.

(7) All applicable laws and regulations shall be strictly adhered to.

**Annex F - Committee Correspondence Letterhead**



(This page intentionally blank.)

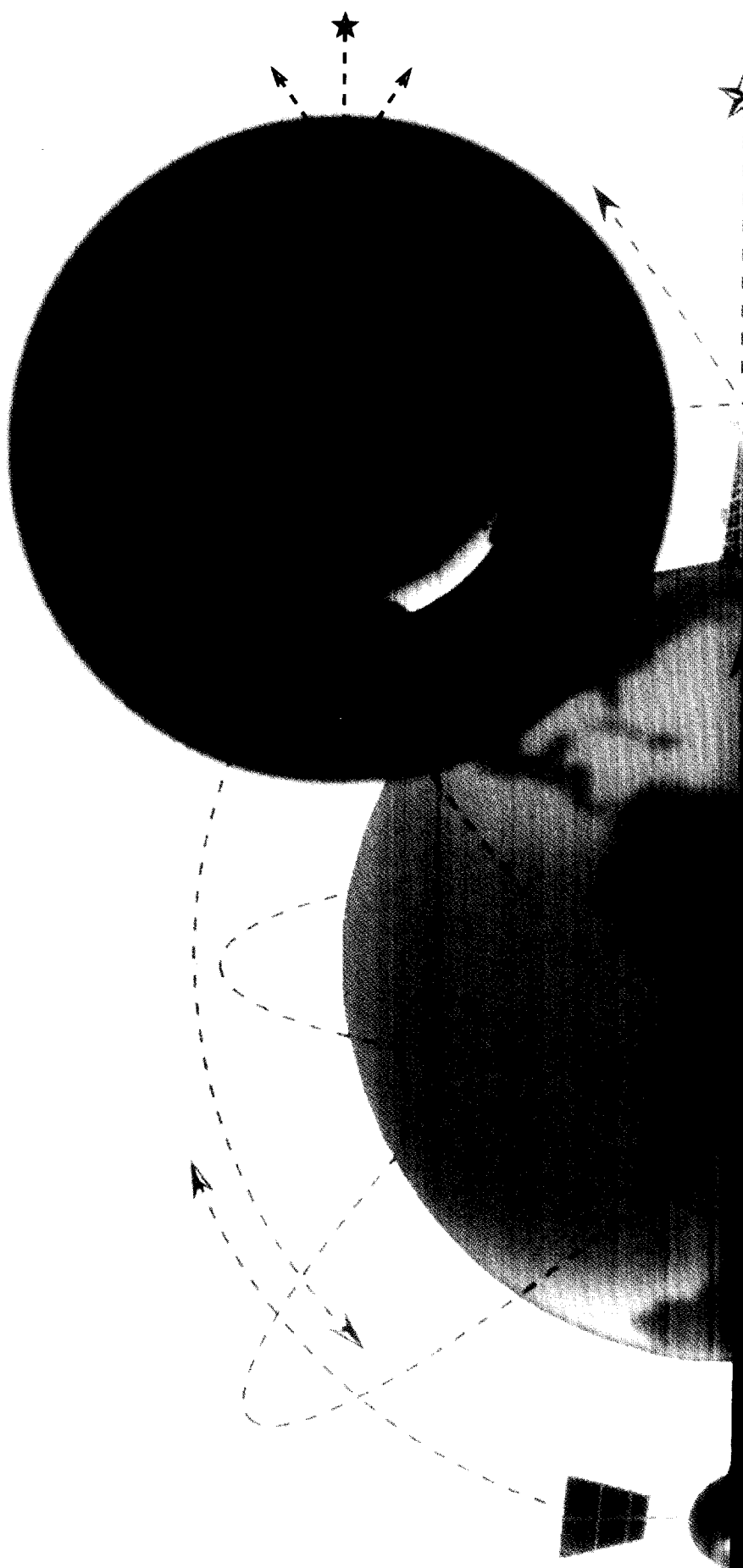
COMMITTEE CORRESPONDENCE



(This correspondence represents "working papers." Therefore, the contents cannot be viewed as reflecting the corporate policies or the views of the Telecommunications Industry Association or of any company. The Association, the companies and individuals involved, take no responsibility in the application of contents of this document.)



(This page intentionally blank.)



# ST R

## Attachment B

STANDARDS AND

TECHNOLOGY

ANNUAL REPORT

1995

TELECOMMUNICATIONS

INDUSTRY ASSOCIATION

*“Standards have a  
huge financial payback  
in the world.”*

Chris Hjelm, VP International Systems Development, Federal Express,  
in his keynote address at ISO/IEC/ITU Seminar on the Standards  
Aspects of the Global Information Infrastructure (GII) in Geneva,  
Switzerland, January 24, 1996 discussing user perspectives and the eco-  
nomic value of standards to Federal Express's worldwide operations.



*“In a global marketplace,  
there are no longer convenient  
'national' or 'regional' ways of  
doings things, but only a  
single global way.”*

Leonardo Chiariglione, CSELT, and recent President and Chairman of the  
Board of DAVIC, at the ISO/IEC/ITU GIJ Seminar, January 25, 1996

ST★R



## *Successful Standards Partners*

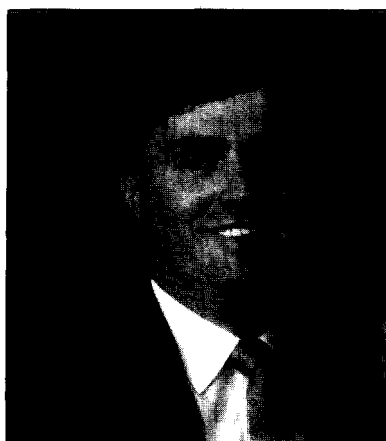
**T**his past year has been an exciting and eventful one for both Global and TIA. As you can imagine, it has also been a

year of change—with the introduction of new products, new processes, new software and new services. In fact, it is no exaggeration to say that the partnership between Global and TIA is virtually a new one, compared to just a few years ago.

Over the years, the successful relationship between Global and TIA has kept in step with the ever-quickenning pace of the telecommunications industry. Customers who must meet critical deadlines or need information at a moment's notice can count on Global's immediate response. In fact, over 85% of all orders are shipped the same day.

Global maintains the world's largest library of hardcopy technical standards, government and military specifications, safety/compliance information and much more. A team of highly skilled information specialists assists customers identify the specific documents they need from over one million documents in stock.

Global, together with its parent company, Information Handling Services, has grown in size and now includes international offices in



**Tom Littman**

*Vice President Operations  
Global Engineering Documents*

Hong Kong, Paris, Miami (Latin America), UK, Canada, Cairo, Tel Aviv, Munich, Sydney and Mexico City. This means more powerful service and exposure for TIA standards. And it's just one more step Global and TIA have taken to promote industry and international standards—worldwide!

*Global and TIA—A Partnership  
that brings you the information  
you need—when you need it*



**Global Engineering Documents**

An IHS Group Company

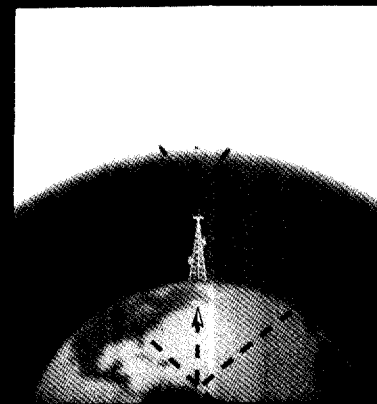
15 Iverness Way East  
Englewood, CO 80112  
1-800-854-7179

# TABLE OF CONTENTS

## 1995 Standards and Technology Annual Report

# STAR

<b>Messages From: President</b> .....	4
<i>Technical Committee Chair</i> .....	5
<i>Chairman of the Board</i> .....	6
<b>TIA Product-Oriented Division Chairs</b> .....	7
<b>Board of Directors</b> .....	8
<b>A Golden Jubilee Celebration</b> .....	10
<b>Recommendations for the Global Information Highway</b> .....	12
<b>CITEL and the Telecommunications Revolution in the Americas</b> .....	17
<b>Engineering Committee Reports:</b>	
<i>TR-8 Mobile and Personal Private Radio Standards</i> .....	20
<i>TR-14 Point-to-Point Communications Systems</i> .....	22
<i>TR-29 Facsimile Systems and Equipment</i> .....	23
<i>TR-30 Data Transmission Systems and Equipment</i> .....	24
<i>TR-32 Personal Radio Equipment</i> .....	26
<i>TR-34 Satellite Equipment and Systems</i> .....	27
<i>TR-41 User Premises Telephone Equipment Requirements</i> .....	28
<i>TR-45 Mobile and Personal Communications Public 800 Standards</i> .....	30
<i>TR-46 Mobile and Personal Communications 1800</i> .....	32
<i>FO-2 Committee on Optical Communications Systems</i> .....	34
<i>FO-6 Fiber Optics</i> .....	36
<b>List of Organizations Which Participate in Standards Committees</b> .....	38
<b>Standards and Technology Department &amp; STAR Contributors</b> .....	42
<b>Organizational Structure Charts</b> .....	43



# THE PRESIDENT'S DESK

## *Standards Impact the Success of TIA Member Companies*

**T**he inaugural issue of the TIA Standards and Technology Annual Report (STAR) was released at our Fall Conference in November 1994 as we celebrated 50 years of active standards writing. This 1995 issue of STAR provides a brief glimpse of that event and the technical personnel who were honored. Standards continue to be an integral part of TIA's service to its members and in 1995 our standard-setting activities grew at an exponential rate. The 1995 STAR highlights those accomplishments in this area.

The need for standards can be traced to the early origins of TIA. Standards were one of the primary reasons for the creation of the Radio Manufacturers Association (RMA) in 1924. RMA eventually became the Electronic Industries Association (EIA). The Information and Telecommunications Technologies Group of EIA (EIA/ITG) formed the Standards and Technology Department of TIA in 1988, when EIA/ITG merged with the United States Telecommunications Suppliers Association to form TIA.

Today, TIA continues to place great importance on standards, evident in the many accomplishments of our engineering committees. 1995 was dynamic with activities supporting both the National and Global Information Infrastructure (NII/GII) initiatives. TIA hosted activities related to NII and GII in Europe, and jointly issued a White Paper with EIA on the GII in response to Vice President Al Gore's *GII: Agenda for Cooperation*, released in February 1995. TIA is also an active participant and holds a seat on the steering committee of the Information Infrastructure Standards Panel (IISP) sponsored by the American National Standards Institute, which is identifying standards for NII/GII. In addition to the global focus on standards, there is an increasing regional focus. In December 1994 at the Summit of the Americas, President Clinton

discussed the Free Trade Agreement of the Americas and the critical role the Inter American Commission on Telecommunication (CITEL) would play in the area of standards throughout this hemisphere. TIA became an Associate Member of CITEL in 1995.

The focus of the STAR is to highlight the work of the technical personnel supporting TIA's standards devel-

opment. Standards have a significant impact on the success of TIA's members and play a key role in the overall success of our industry. The Federal Communications Commission's (FCC) Network Reliability Council reviewed the nation's standards-setting process and noted the enhancements TIA has made over the last several years. The FCC also validated the key role standards play in ensuring a reliable, interoperable network. Internationally, our standards activities are expanding as more of our members participate in the global marketplace.

TIA will continue its commitment to

support the resources needed to maintain its program.

TIA also urges members to continue supporting the work of standards by making the resources — both human and other — available to carry on this vital function.

Sincerely,



**Matthew J. Flanigan, President**



**Matthew J. Flanigan**  
*President*



# TECHNICAL COMMITTEE REPORT

## *Supporting the Voluntary Standards Process*

**T**he TIA Board of Directors created the Technical Committee to oversee the standards work and other technical matters of the Association. The Technical Committee is chaired by a member of the Board and has overall responsibility for establishing the broad technical policy of the Association, including the organization and operating policies of the Standards and Technology Department and the engineering committees.

My first term as the chair of the Technical Committee began in 1995. The technology program at TIA, accredited by the American National Standards Institute (ANSI), is extremely active; TIA issues on average one standard or technical document per week. Over 1,200 technical personnel support TIA's standards activities in its 70 committees and subcommittees. The five product oriented divisions of TIA sponsor its engineering committees and subcommittees.

These divisions include: the User Premises Equipment Division (UPED), which sponsors TR-29, TR-30, TR-32 and TR-41; the Mobile and Personal Communications Division (MPCD), which sponsors TR-8, TR-45, and TR-46; the Network Equipment Division (NED), which sponsors TR-14; the Fiber Optics Division (FOD), which sponsors FO-2 and FO-6; and the newly created Satellite Communications Division (SCD) which sponsors TR-34.

As sponsors, the divisions provide funds for the staff support, printing, postage, travel, meeting rooms, refreshments, audio-visual equipment and other resources necessary for the engineering committees and subcommittees. Often, particular meetings are hosted by companies or other organizations active in our standards work, and this assistance is greatly appreciated. Along with the human resources of the attendees at TIA's standards meetings, there is a considerable amount of other resources dedicated to the standards effort. Considering the addition of the SCD and increased international standards efforts, the TIA

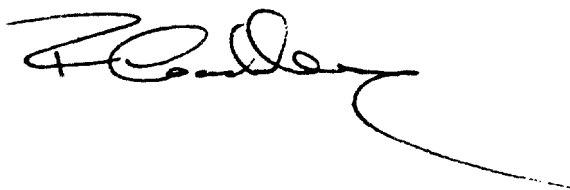
Board in 1995 authorized major increases in TIA staff support for our Standards and Technology Department.

A major portion of the funds for standards work comes from the dues of TIA members. In addition, TIA sells the published standards to help supplement standards-setting activities. TIA also gains support from non-TIA member engineering fees and other fees from those participants in our committees who are not TIA members, but who participate in our standards work.

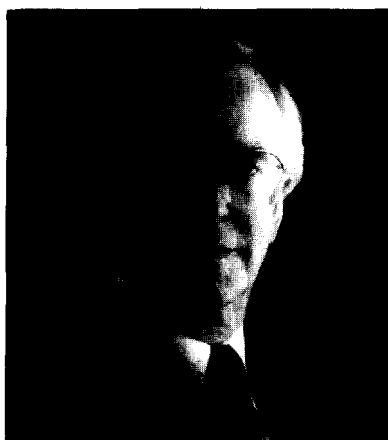
TIA standards are published worldwide by Global Engineering Documents and IHS and are available in hard copy, CD-ROM, microfiche, and microfilm. TIA also sponsors educational seminars directed to explaining our standards and the process used to create them. We cooperate with other standards developing organizations to avoid duplication of standards and make our standards available for use by other such organizations. We worked closely with Committee T1 and the Society of Cable Telecommunications Engineers (SCTE) in 1995 on joint efforts.

The program works and works well due to the concerted efforts of TIA staff and the many participants, companies, and other organizations that support the voluntary standards process.

Sincerely,



**Robert Coackley**, *Chair, Technical Committee*



**Bob Coackley**  
*Chair, Technical Committee*